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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,932	05/26/2005	Sten Edstrom	G61-029	6877

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EXAMINER	
HOOK, JAMES F	

ART UNIT	PAPER NUMBER
3754	

MAIL DATE	DELIVERY MODE
06/09/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/517,932	EDSTROM, STEN	
	Examiner	Art Unit	
	James F. Hook	3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 7-13, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maimets in view of Wrightson and Walker (091). The reference to Maimets discloses the recited method of sealing inaccessible pipes in the ground in which a fluid coating material is sprayed out of at least one nozzle moved through the pipe towards the inner wall of the pipe for covering at least part thereof, the material 9b is brought to harden forming a part of the wall to fill a substantial hole where at least one unperforated material piece 9a which is reduced in size, the piece is introduced into the pipe to a location for a substantial hole for covering the hole the unperforated material piece forming the pipe piece, a video camera is provided to locate the damaged area and is inserted with the pipe piece, where inherently such is used to observe the deployment of the pipe piece, and where the pipe piece is seen in the figures to have a thickness less than half the thickness of the wall and is stated as having a thickness in the recited range. The reference to Maimets discloses all of the recited structure with the exception of forming the unperforated material piece with a longitudinal slit, holding it closed with a breakable strap, where the material piece expands by stored potential energy, spraying the epoxy sealer on the patch once it is in

place, and the material piece is formed of a glass reinforced plastic. The reference to Wrightson discloses that it is old and well known in the art to form pipe pieces 11 formed to be placed into a pipe to repair such and expanded to break a holding element 14 to deploy the pipe piece from a smaller diameter to a larger diameter, where such pipe pieces can be formed of plastic materials, specifically polyester reinforced with glass fibers, and that such regains its shape once the member 14 is broken due inherently to stored potential energy. It would have been obvious to one skilled in the art to modify the repair pipe piece in Maimets by forming such of polyester reinforced with glass fibers and to provide such with a slit and hold it in a smaller configuration using a breakable strap that is broken on deployment to allow the potential energy in the piece to cause it to open as suggested by Wrightson where such is an equivalent material to form the same type of expandable pipe piece for repair of the inside of a pipe and such would suggest expected results for such material being used for the same application. It is considered merely intended use to use the sleeve to cover only a portion of the pipe opposite a T branch where such would only require sizing the sleeve appropriately which would only require routine skill in the art. The reference to Walker discloses that it is old and well known in the art of pipe repair to provide a patch where epoxy can be sprayed on the internal side of the pipe being repaired, a patch can then be provided, and another coat of epoxy can be sprayed on the patch and pipe interior to form the final repair. It would have been obvious to one skilled in the art to modify the sealant providing step disclosed in Maimets by spraying the epoxy on the patch once it is in place to complete the repair as suggested by Walker where such is a known

method of sealing a patch to a wall and would provided better sealing of the patch to prevent the patch from separating from the wall and requiring further repairs.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maimets in view of Wrightson and Walker as applied to claims 1-3, 7-13, 17, and 18 above, and further in view of Sigel. The reference to Maimets as modified discloses all of the recited structure with the exception of using an inflatable bladder member to deploy the repair patch. The reference to Sigel discloses the recited method of sealing inaccessible pipes in the ground in which a fluid coating material is sprayed out of at least one nozzle moved through the pipe towards the inner wall of the pipe for covering at least part thereof, the material 16 is brought to harden forming a part of the wall 8,10 to fill a substantial hole 12 where at least one unperforated material piece 4 being divided in the longitudinal direction is held together by means 11 for holding the material piece together to form a pipe piece with a smaller outer diameter than the inner diameter of the pipe which is provided before the coating material to the pipe, the piece is introduced into the pipe to a location for a substantial hole for covering the hole, the means for holding is broken so that the pipe piece increases in diameter while releasing potential energy stored under pretension and will bear against the inner wall of the pipe, and the unperforated material piece forming the pipe piece has no ability to seal the hole alone, but forms in the subsequent spraying of the coating material an auxiliary wall over the hole retaining the material sprayed within the pipe, a video camera is provided to locate the damaged area and is inserted with the pipe piece, where inherently such is used to observe the deployment of the pipe piece, a bellow like

member formed of a rubber hose material forms an expandable bladder/balloon 3 to be pressurized by air to expand inside the pipe piece to hold such and break the holding means when such is moved to the location to be repaired, and where the pipe piece is seen in the figures to have a thickness less than half the thickness of the wall. It would have been obvious to one skilled in the art to modify the manner of deploying the sleeve in Maimets as modified by using an inflatable bladder as suggested by Sigel where such is an old and well known manner of deploying expanding patch sleeves into pipes for repair where such would be a simpler deployment method and would save money in a simpler device to deploy.

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maimets in view of Wrightson and Walker as applied to claims 1-3, 7-13, 17, and 18 above, and further in view of Edstrom (SE 504663). The Maimets reference as modified discloses all of the recited structure with the exception of disclosing the specific coating material being used. The reference to Edstrom discloses that it is old and well known in the art to provide a coating material which would include glass flakes in a polyester material or fire proof paint formed with mineral wool. It would have been obvious to one skilled in the art to modify Maimets as modified by using a coating material containing mineral wool, or polyester material with glass flakes as the spray material used to coat insides of pipes as suggested by Edstrom where such is an equivalent spray material used to coat pipes and would provide added protection thereby lengthening the life of the pipe. The specific use of the pipe is considered merely intended use, where the pipe lining method of Sigel could be utilized in any pipe, and the size of the hole is

considered to be merely a choice of mechanical expedients where one skilled in the art would only require routine experimentation to arrive at optimum values for the materials used to cover any sized hole.

. ***Response to Arguments***

Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection. Maimets discloses sealing the patch with epoxy but was just not specific on how the epoxy is applied which is now taught by the Walker reference. The argument that the references cannot be combined because of not all disclosing methods of repair without excavation is not persuasive where the base reference teaches this feature and the other repair methods are used to modify this process and one skilled in the art would look to any method of repair to solve problems in the art of pipe repair.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James F. Hook/
Primary Examiner, Art Unit 3754

JFH